



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

APR 01 2015



HEALTHY AIR LIVING™

Mr. Shamim Reza  
Linn Operating Inc  
5201 Truxtun Ave  
Bakersfield, CA 93309

**Re: Proposed Authority to Construct/Certificate of Conformity (Minor Mod)  
District Facility # S-1328  
Project # 1151280**

Dear Mr. Reza:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The project authorizes steam generators S-1328-59 and '-60 as additional disposal devices for Thermally Enhanced Oil Recovery (TEOR) Operation S-1328-7.

After addressing all comments made during the 45-day EPA comment period, the District intends to issue the Authority to Construct with a Certificate of Conformity. Prior to operating with modifications authorized by the Authority to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

  
Arnaud Marjollet  
Director of Permit Services

Enclosures

cc: Gerardo C. Rios, EPA (w/enclosure) via email

Sayed Sadredin  
Executive Director/Air Pollution Control Officer

Northern Region  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585



## San Joaquin Valley Air Pollution Control District

### Authority to Construct Application Review

Alternate Disposal Devices for TEOR Operation

Facility Name: Linn Operating Inc  
Mailing Address: 5201 Truxtun Ave  
Bakersfield, CA 93309

Contact Person: Shamim Reza  
Telephone: (661) 616-3889

Fax:

E-Mail: sreza@linenergy.com

Application #(s): S-1328-7-18

Project #: 1151280

Deemed Complete: March 25, 2015

Date: March 30, 2015

Engineer: Richard Edgehill

Lead Engineer: Allan Phillips *AP* *supr* *ADP*

APR 01 2015

#### I. Proposal

Linn Operating Company (Linn) has requested an Authority to Construct (ATC) to authorize steam generators S-1328-59 and '-60 as alternative disposal devices for TEOR operation S-1328-7. The project is not subject to NSR as it is consistent with FYI III Category 20 listed below. There is no expected change in vapor control system control efficiency.

	ATC req'd ?	TV application req'd ?	NSR mod ?	Description	Comments
20	Yes	Yes	No	Allowing a vapor control system to vent to a different permitted disposal device	Not a change in the method of operation of the vapor control system provided that the vapor control system can continue to meet it's control efficiency requirement.

Standby flare emissions factors are updated to the Generally Accepted Emissions Factors for flares in FYI-83. This change has no NSR implications pursuant to District policy APR 1110, Use of Revised Emissions Factors.

#### Disposition of Outstanding ATCs

ATC S-1328-7-16 has been implemented and serves as the base document. Current PTO S-1328-7-17 and ATC S-1328-7-16 are included in **Attachment I**.

Linn received their Title V Permit on August 18, 2005. This modification can be classified as a Title V minor modification pursuant to Rule 2520, and can be processed with a Certificate of

Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. Linn must apply to administratively amend their Title V permit.

## II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (4/21/11) – **not applicable** - not a NSR Modification  
Rule 2410 Prevention of Significant Deterioration (6/16/11) ) – **not applicable** - not a NSR Modification and no increase in emissions  
Rule 2520 Federally Mandated Operating Permits (6/21/01)  
Rule 4102 Nuisance (12/17/92)  
Rule 4401 Steam Enhanced Crude Oil Production Well Vents (December 14, 2006)  
CH&SC 41700 Health Risk Assessment  
CH&SC 42301.6 School Notice  
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)  
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

## III. Project Location

This project is located at the Hill Lease in the South Belridge Oil Field, (Section 19, Township 28S, Range 21E) in Linn's Heavy Oil Western Stationary Source.

The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

## IV. Process Description

The Thermally Enhanced Oil Recovery (TEOR) operation with 171 steam drive wells operated with a vapor control system including a permit exempt heater treater, gas liquid separator, compressor(s), flare, and H<sub>2</sub>S scrubbing vessels. Applicant has requested authorization to include steam generators S-1328-59 and '-60 as additional disposal devices. Steam generators S-1328-59 and '-60 are currently in public notice, and will be authorized to burn TEOR gas. The steam generators S-1328-59 and '-60 can be expected to meet their emission limits while burning TEOR gas from this TEOR operation.

## V. Equipment Listing

### Pre-Project Equipment Description:

ATC S-1328-7-16: MODIFICATION OF THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING 171 STEAM DRIVE WELLS WITH VAPOR CONTROL SYSTEM, INCLUDING PERMIT EXEMPT HEATER TREATER (FORMERLY S-1328-56) OFF-GAS, GAS/LIQUID SEPARATOR, COMPRESSOR, CONDENSERS, TWO H2S SCRUBBING VESSELS,

FLARE, AND ASSOCIATED PIPING: REVISE SULFUR MONITORING  
CONDITIONS

Proposed Modification:

ATC S-1328-7-18: MODIFICATION OF THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING 171 STEAM DRIVE WELLS WITH VAPOR CONTROL SYSTEM, INCLUDING PERMIT EXEMPT HEATER TREATER (FORMERLY S-1328-56) OFF-GAS, GAS/LIQUID SEPARATOR, COMPRESSOR, CONDENSERS, TWO H<sub>2</sub>S SCRUBBING VESSELS, FLARE, AND ASSOCIATED PIPING: AUTHORIZE S-1328-59 AND 60 AS INCINERATION DEVICES AND UPDATE FLARE EMISSIONS FACTORS

Post Project Equipment Description:

S-1328-7-18: THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING 171 STEAM DRIVE WELLS WITH VAPOR CONTROL SYSTEM, INCLUDING PERMIT EXEMPT HEATER TREATER (FORMERLY S-1328-56) OFF-GAS, GAS/LIQUID SEPARATOR, COMPRESSOR, CONDENSERS, TWO H<sub>2</sub>S SCRUBBING VESSELS, FLARE, ASSOCIATED PIPING VENTED TO STEAM GENERATORS S-1328-59 AND '60 AS DISPOSAL DEVICES

**VI. Emission Control Technology Evaluation**

The TEOR operation emits VOCs from fugitive emissions components. Applicant is required to monitor the number of fugitive emissions components and resulting emissions and to implement an I&M program consistent with the requirements of District Rule 4401. The vapor control efficacy is required by permit to be at least 99%.

**VII. General Calculations**

**A. Assumptions**

Heat input rating of flare: 20.83 MMBtu/hr (project 1053054)

The project is not a NSR Modification and therefore formal calculations are not required. PE 2 will be calculated for inclosing in the PAS data base.

**B. Emissions Factors**

Pre- and post-project emissions factors for the standby flare are revised pursuant to FYI-83 and APR 1110 Using Revised Emissions Factors.

Flare Emission Factors (EF) in lb/MMBtu					
Gas type	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
TVR gas	0.068		0.026 (non BACT)	0.370	0.063

## C. Calculations

### Post-Project Potential to Emit

#### Flare emissions

NO<sub>x</sub>: 0.068 lb/MMBtu x 20.83 MMBtu/hr x 24 hr/day = 34.0 lb/day

SO<sub>x</sub>: 115 lb/day (PTOs S-1328- 7-17, Condition #9)

PM<sub>10</sub>: 0.026 lb/MMBtu x 20.83 MMBtu/hr x 24 hr/day = 13.0 lb/day

CO: 0.37 lb/MMBtu x 20.83 MMBtu/hr x 24 hr/day = 185.0 lb/day

VOC 0.063 lb/MMBtu x 20.83 MMBtu/hr x 24 hr/day = 31.5 lb/day

#### Fugitive Emissions

VOC (fugitive emissions): 184.2 lb/day (PTOs S-1328- 7-17, Condition #7)

Annual emissions are included in the following SLC (combined emissions from '-1, '-2, and '-3):

*Combined annual combustion emissions from units S-1328-1, -2, -3 and the flare identified on S-1328-7 shall not exceed any of the following: NO<sub>x</sub> (as NO<sub>2</sub>): 25,733 lb/yr, SO<sub>x</sub> (as SO<sub>2</sub>): 41,975 lb/yr, PM<sub>10</sub>: 7,154 lb/yr, CO: 22,849 lb/yr, or VOC: 4,271 lb/yr. [District Rule 2201] Y*

No annual emissions are included in the emissions profile for S-1328-7.

Emissions profiles are included in **Attachment II**.

## VIII. Compliance

### Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. The proposed modification is a Minor Modification to the Title V Permit.

In accordance with Rule 2520, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;

3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
  - a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
  - b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

As discussed above, the facility has applied for a Certificate of Conformity (COC). Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC upon submittal of the Title V administrative amendment/minor modification application.

#### **Rule 4101 Visible Emissions**

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). Visible emissions exceeding Ringelmann 1 or 20% opacity are not expected from these gas-fired steam generators. Also, based on past inspections of the facility, continued compliance is expected.

#### **Rule 4102 Nuisance**

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations provided the equipment is well maintained. Therefore, compliance with this rule is expected.

#### **California Health & Safety Code 41700 – Health Risk Analysis**

District Policy APR 1905 – Risk Management Policy for Permitting New and Modified Sources specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

Since there is no increase in emissions associated with this project, no health risk analysis is required, and continued compliance with Rule 4102 is expected.

### **Rule 4311 - Flares**

The purpose of this Rule is to limit the emissions of volatile organic compounds (VOC), oxides of nitrogen (NO<sub>x</sub>), and sulfur oxides (SO<sub>x</sub>) from the operation of flares.

The flare is not being modified by the project and is currently operating in compliance with the rule. Continued compliance is expected.

### **Rule 4401 Steam-Enhanced Crude Oil Production Wells**

The purpose of this Rule is to limit the Volatile Organic Compound (VOC) emissions from steam-enhanced crude oil production wells. The current PTO and base document ATC include updated conditions ensuring compliance with the rule. The project is not expected to affect compliance status and therefore continued compliance is expected.

### **California Health & Safety Code 42301.6 (School Notice)**

This site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

### **California Environmental Quality Act (CEQA)**

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The District performed an Engineering Evaluation (this document) for the proposed project and determined that all project specific emission unit(s) are exempt from Best Available Control Technology (BACT) requirements. Furthermore, the District has determined that potential emission increases would have a less than significant health impact on sensitive receptors.

Issuance of permits for emissions units not subject to BACT requirements and with health impact less than significant is a matter of ensuring conformity with applicable District rules and regulations and does not require discretionary judgment or deliberation. Thus, the District concludes that this permitting action constitutes a ministerial approval. Section 21080 of the Public Resources Code exempts from the application of CEQA those projects over which a



public agency exercises only ministerial approval. Therefore, the District finds that this project is exempt from the provisions of CEQA.

#### **IX. Recommendation**

Compliance with all applicable rules and regulations is expected. Pending a successful COC review period issue ATC S-1328-7-18 subject to the conditions listed on the attached draft ATC (**Attachment III**).

#### **X. Billing Information**

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-1328-7-18	3020-09-A	171 Vapor Controlled Wells	\$ 1597.14

#### **Attachments**

- I: PTO S-1328-7-17 and ATC S-1328-7-16
- II: Emissions Profiles
- III: Draft ATC



Attachment I  
PTO S-1328-7-17 and ATC S-1328-7-16



# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1328-7-17

**EXPIRATION DATE:** 03/31/2016

**SECTION:** NE19 **TOWNSHIP:** 28S **RANGE:** 21E

## **EQUIPMENT DESCRIPTION:**

THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING 171 STEAM DRIVE WELLS WITH VAPOR CONTROL SYSTEM, INCLUDING PERMIT EXEMPT HEATER TREATER (FORMERLY S-1328-56) OFF-GAS, GAS/LIQUID SEPARATOR, COMPRESSOR, CONDENSERS, TWO H2S SCRUBBING VESSELS, FLARE, AND ASSOCIATED PIPING

## **PERMIT UNIT REQUIREMENTS**

1. Permittee shall maintain a current list of all steam enhanced wells, including identification of all steam enhanced wells with polish rod boxes subject to BACT I&M program connected to this system, and shall update the list whenever a well is added, replaced or deleted. The updated list shall be submitted to the District 60 days prior to the permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Vapor control system shall serve thermally enhanced well vents, permit exempt heater treater, and Wemco S-1328-58. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Scrubbing solution shall consist only of Sulfa-Check and/or Sulfa-Treat media and additives unless prior District approval is obtained. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Noncondensable vapor gas from this well vent vapor control system may be incinerated in the following devices: steam generator permits S-1328-1, S-1328-2, and S-1328-3, and the standby flare. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Noncondensable vapor gas throughput to flare shall not exceed 1.0 MMscf per day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Permittee shall maintain accurate component count and emissions calculated using CAPCOA EPA Protocol for Leak Emissions Estimate Fugitive Hydrocarbon Leaks Oil and Gas Production Operations Average Emission Factors, Table 2-4, February 1999. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Fugitive VOC emission rate from TEOR components shall not exceed 184.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC content of gas processed shall not exceed 31% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rule 1070 and District Rule 2201] Federally Enforceable Through Title V Permit
9. Emission rates from the standby flare shall not exceed any of the following: NOx (as NO2): 0.0725 lb/MMBtu, SOx (as SO2): 115.0 lb/day, PM10: 0.0202 lb/MMBtu, CO: 0.022 lb/MMBtu, or VOC: 0.0021 lb/MMBtu. [District Rules 2201, 4201, 4301 and 4801] Federally Enforceable Through Title V Permit
10.  $SO_x \text{ (as } SO_2) = (1.68 \times 10^{-7}) \times \{(P_1 \times F_1) + (P_2 \times F_2)\} = \text{lb/day}$ :  $P_1 = \text{ppmv } H_2S \text{ in sweet gas}$ ,  $P_2 = \text{ppmv } H_2S \text{ in noncondensable vapor gas}$ ,  $F_1 = \text{sweet gas (scf/day)}$ , and  $F_2 = \text{noncondensable vapor gas (scf/day)}$ . [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

11. Combined annual combustion emissions from units S-1328-1, -2, -3 and the flare identified on S-1328-7 shall not exceed any of the following: NOx (as NO2): 25,733 lb/yr, SOx (as SO2): 41,975 lb/yr, PM10: 7,154 lb/yr, CO: 22,849 lb/yr, or VOC: 4,271 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
12. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Standby flare shall comply with all requirements of District Rule 4311. [District Rule 4311] Federally Enforceable Through Title V Permit
15. The flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
16. The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
17. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
18. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
19. Open flares (air-assisted, steam-assisted, or non-assisted) in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18. [District Rule 4311, 5.6] Federally Enforceable Through Title V Permit
20. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
21. Permittee shall sample sweet and noncondensable vapor gas monthly for H2S concentration and shall maintain daily records of sweet & noncondensable vapor gas flowrate (scfd). [District Rule 2201] Federally Enforceable Through Title V Permit
22. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual combustion emissions from units S-1328-1, -2, -3, and flare identified on S-1328-7 for demonstration of compliance with above SLC annual limits. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Permittee shall measure H2S concentration from on-line scrubber(s) outlet with District-approved device (e.g. MSA Samplair pump unit No. 463998 and MSA H2S detector tubes) at least daily when scrubber is in operation. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
24. Permittee shall measure daily the non-condensibles gas flow rate and, at least monthly, the non-condensable gas H2S concentration. Records shall be maintained and made readily available for District inspection upon request. [District Rule 1070]
25. Permittee shall maintain accurate daily records of volume noncondensable gas incinerated in flare. [District Rule 1070]
26. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
27. Any steam-enhanced crude oil production well undergoing service or repair during the time the well is not producing shall be exempt from the requirements of Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

28. The requirements of this rule shall not apply to components serving the produced fluid line. [District Rule 4401, 4.5] Federally Enforceable Through Title V Permit
29. Except for complying with the applicable requirements of Section 6.1, Section 6.6.6 and Section 7.2, the requirements of this rule shall not apply to components described in Section 4.6.1 through Section 4.6.4. An operator claiming an exemption pursuant to Section 4.6 shall provide proof of the applicable criteria to the satisfaction of the APCO. [District Rule 4401, 4.6] Federally Enforceable Through Title V Permit
30. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1.1 and 5.1.2] Federally Enforceable Through Title V Permit
31. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit
32. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit
33. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
34. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit
35. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit
36. Unless exempt under Section 4.7 or Rule 4401, except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit
37. Unless exempt under Section 4.7 or Rule 4401, an operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

38. Unless exempt under Section 4.7 or Rule 4401, in addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit
39. Unless exempt under Section 4.7 or Rule 4401, in addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit
40. Unless exempt under Section 4.7 or Rule 4401, an operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.5] Federally Enforceable Through Title V Permit
41. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.6] Federally Enforceable Through Title V Permit
42. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit
43. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit
44. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit
45. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit
46. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit
47. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit
48. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.



49. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit
50. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit
51. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit
52. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit
53. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit
54. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1.7] Federally Enforceable Through Title V Permit
55. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit
56. If approved by the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 of Rule 4401 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit
57. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit
58. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
59. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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60. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval for TEOR gas, and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit
61. Operator shall maintain an inspection log pursuant to Section 6.4 of Rule 4401, including, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.1.4 and 6.4] Federally Enforceable Through Title V Permit
62. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. [District Rule 4401, 6.5] Federally Enforceable Through Title V Permit
63. In accordance with the approved Operator Management Plan (OMP), permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit
64. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit
65. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
66. Compliance with permit conditions in the Title V permit shall be deemed in compliance with District Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
67. The requirements of District Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit because it is not an in situ combustion well vent. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-1328-7-16

**ISSUANCE DATE:** 06/23/2014

**LEGAL OWNER OR OPERATOR:** LINN OPERATING, INC  
**MAILING ADDRESS:** 5201 TRUXTUN AVE  
BAKERSFIELD, CA 93309

**LOCATION:** HEAVY OIL WESTERN STATIONARY SOURCE  
CA

**SECTION:** NE19 **TOWNSHIP:** 28S **RANGE:** 21E

## **EQUIPMENT DESCRIPTION:**

MODIFICATION OF THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING 171 STEAM DRIVE WELLS WITH VAPOR CONTROL SYSTEM, INCLUDING PERMIT EXEMPT HEATER TREATER (FORMERLY S-1328-56) OFF-GAS, GAS/LIQUID SEPARATOR, COMPRESSOR, CONDENSERS, TWO H2S SCRUBBING VESSELS, FLARE, AND ASSOCIATED PIPING: REVISE SULFUR MONITORING CONDITIONS

## **CONDITIONS**

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Permittee shall maintain a current list of all steam enhanced wells, including identification of all steam enhanced wells with polish rod boxes subject to BACT I&M program connected to this system, and shall update the list whenever a well is added, replaced or deleted. The updated list shall be submitted to the District 60 days prior to the permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Vapor control system shall serve thermally enhanced well vents, permit exempt heater treater, and Wemco S-1328-58. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Scrubbing solution shall consist only of Sulfa-Check and/or Sulfa-Treat media and additives unless prior District approval is obtained. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Sayed Sadredin, Executive Director / APCO

6. Noncondensable vapor gas from this well vent vapor control system may be incinerated in the following devices: steam generator permits S-1328-1, S-1328-2, and S-1328-3, and the standby flare. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Noncondensable vapor gas throughput to flare shall not exceed 1.0 MMscf per day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain accurate component count and emissions calculated using CAPCOA EPA Protocol for Leak Emissions Estimate Fugitive Hydrocarbon Leaks Oil and Gas Production Operations Average Emission Factors, Table 2-4, February 1999. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Fugitive VOC emission rate from TEOR components shall not exceed 184.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. VOC content of gas processed shall not exceed 31% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
11. Emission rates from the standby flare shall not exceed any of the following: NO<sub>x</sub> (as NO<sub>2</sub>): 0.0725 lb/MMBtu, SO<sub>x</sub> (as SO<sub>2</sub>): 115.0 lb/day, PM<sub>10</sub>: 0.0202 lb/MMBtu, CO: 0.022 lb/MMBtu, or VOC: 0.0021 lb/MMBtu. [District Rules 2201, 4201, 4301 and 4801] Federally Enforceable Through Title V Permit
12. Daily SO<sub>x</sub> emissions shall be calculated as follows:  $SO_x \text{ (lb/day)} = (1.68 \times 10E-7) \times \{(P1 \times F1) + P2 \times F2\}$ , where P1 = ppmv total sulfur (as H<sub>2</sub>S) in sweet gas, P2 = ppmv total sulfur (as H<sub>2</sub>S) in noncondensable vapor gas, F1 = sweet gas flowrate (scf/day) and F2 = noncondensable vapor gas (scf/day). [District Rule 2201] Federally Enforceable Through Title V Permit
13. Combined annual combustion emissions from units S-1328-1, -2, -3 and the flare identified on S-1328-7 shall not exceed any of the following: NO<sub>x</sub> (as NO<sub>2</sub>): 25,733 lb/yr, SO<sub>x</sub> (as SO<sub>2</sub>): 41,975 lb/yr, PM<sub>10</sub>: 7,154 lb/yr, CO: 22,849 lb/yr, or VOC: 4,271 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
14. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Standby flare shall comply with all requirements of District Rule 4311. [District Rule 4311] Federally Enforceable Through Title V Permit
17. The flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
18. The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
19. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
20. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
21. Open flares (air-assisted, steam-assisted, or non-assisted) in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18. [District Rule 4311, 5.6] Federally Enforceable Through Title V Permit
22. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual emissions for each unit. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Permittee shall sample sweet and noncondensable vapor gas monthly for total sulfur concentration (as H<sub>2</sub>S) and shall maintain daily records of sweet and noncondensable vapor gas flowrate (scf/day). [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
25. Permittee shall maintain accurate daily records of volume noncondensable gas incinerated in flare. [District Rule 1070] Federally Enforceable Through Title V Permit
26. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
27. Any steam-enhanced crude oil production well undergoing service or repair during the time the well is not producing shall be exempt from the requirements of Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
28. The requirements of this rule shall not apply to components serving the produced fluid line. [District Rule 4401, 4.5] Federally Enforceable Through Title V Permit
29. Except for complying with the applicable requirements of Section 6.1, Section 6.6.6 and Section 7.2, the requirements of this rule shall not apply to components described in Section 4.6.1 through Section 4.6.4. An operator claiming an exemption pursuant to Section 4.6 shall provide proof of the applicable criteria to the satisfaction of the APCO. [District Rule 4401, 4.6] Federally Enforceable Through Title V Permit
30. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1.1 and 5.1.2] Federally Enforceable Through Title V Permit
31. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit
32. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit
33. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
34. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit

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35. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit
36. Unless exempt under Section 4.7 or Rule 4401, except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit
37. Unless exempt under Section 4.7 or Rule 4401, an operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit
38. Unless exempt under Section 4.7 or Rule 4401, in addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit
39. Unless exempt under Section 4.7 or Rule 4401, in addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit
40. Unless exempt under Section 4.7 or Rule 4401, an operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.5] Federally Enforceable Through Title V Permit
41. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.6] Federally Enforceable Through Title V Permit
42. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit
43. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit
44. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit
45. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit

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46. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit
47. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit
48. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit
49. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit
50. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit
51. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit
52. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit
53. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit
54. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1.7] Federally Enforceable Through Title V Permit
55. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit
56. If approved by the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 of Rule 4401 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit
57. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit
58. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

59. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit
60. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval for TEOR gas, and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit
61. Operator shall maintain an inspection log pursuant to Section 6.4 of Rule 4401, including, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.1.4 and 6.4] Federally Enforceable Through Title V Permit
62. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. [District Rule 4401, 6.5] Federally Enforceable Through Title V Permit
63. In accordance with the approved Operator Management Plan (OMP), permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit
64. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit
65. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
66. Compliance with permit conditions in the Title V permit shall be deemed in compliance with District Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
67. The requirements of District Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit because it is not an in situ combustion well vent. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit



Attachment II  
Emissions Profiles



Permit #: S-1328-7-18	Last Updated
Facility: LINN OPERATING, INC	03/28/2015 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):					
Daily Emis. Limit (lb/Day)	34.0	115.0	13.0	185.0	215.7
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	0.0	0.0	0.0
Q2:	0.0	0.0	0.0	0.0	0.0
Q3:	0.0	0.0	0.0	0.0	0.0
Q4:	0.0	0.0	0.0	0.0	0.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					



Attachment III  
Draft ATC



San Joaquin Valley  
Air Pollution Control District

## AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: S-1328-7-18

LEGAL OWNER OR OPERATOR: LINN OPERATING, INC  
MAILING ADDRESS: 5201 TRUXTUN AVE  
BAKERSFIELD, CA 93309

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE  
CA

SECTION: NE19 TOWNSHIP: 28S RANGE: 21E

### EQUIPMENT DESCRIPTION:

MODIFICATION OF THERMALLY ENHANCED OIL RECOVERY OPERATION SERVING 171 STEAM DRIVE WELLS WITH VAPOR CONTROL SYSTEM, INCLUDING PERMIT EXEMPT HEATER TREATER (FORMERLY S-1328-56) OFF-GAS, GAS/LIQUID SEPARATOR, COMPRESSOR, CONDENSERS, TWO H<sub>2</sub>S SCRUBBING VESSELS, FLARE, AND ASSOCIATED PIPING; AUTHORIZE S-1328-59 AND 60 AS INCINERATION DEVICES AND UPDATE FLARE EMISSIONS FACTORS

## CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Permittee shall maintain a current list of all steam enhanced wells, including identification of all steam enhanced wells with polish rod boxes subject to BACT I&M program connected to this system, and shall update the list whenever a well is added, replaced or deleted. The updated list shall be submitted to the District 60 days prior to the permit anniversary. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Vapor control system shall serve thermally enhanced well vents, permit exempt heater treater, and Wemco S-1328-58. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

Arnaud Marjollet, Director of Permit Services

S-1328-7-18 : Apr 1 2015 1:30PM -- EDGEHILR . Joint Inspection NOT Required

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585

5. Scrubbing solution shall consist only of Sulfa-Check and/or Sulfa-Treat media and additives unless prior District approval is obtained. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Noncondensable vapor gas from this well vent vapor control system may be incinerated in the following devices: steam generator permits S-1328-1, S-1328-2, and S-1328-3, and the standby flare. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Noncondensable vapor gas throughput to flare shall not exceed 1.0 MMscf per day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Permittee shall maintain accurate component count and emissions calculated using CAPCOA EPA Protocol for Leak Emissions Estimate Fugitive Hydrocarbon Leaks Oil and Gas Production Operations Average Emission Factors, Table 2-4, February 1999. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Fugitive VOC emission rate from TEOR components shall not exceed 184.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
10. VOC content of gas processed shall not exceed 31% by weight. Permittee shall maintain a written record of VOC content (sampled not less than annually) and shall make such records available for District inspection upon request for a period of five years. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
11. Emission rates from the standby flare shall not exceed any of the following: NO<sub>x</sub> (as NO<sub>2</sub>): 0.068 lb/MMBtu, SO<sub>x</sub> (as SO<sub>2</sub>): 115.0 lb/day, PM<sub>10</sub>: 0.026 lb/MMBtu, CO: 0.37 lb/MMBtu, or VOC: 0.063 lb/MMBtu. [District Rules 2201, 4201, 4301 and 4801] Federally Enforceable Through Title V Permit
12. Daily SO<sub>x</sub> emissions shall be calculated as follows:  $SO_x \text{ (lb/day)} = (1.68 \times 10E-7) \times \{(P1 \times F1) + P2 \times F2\}$ , where P1 = ppmv total sulfur (as H<sub>2</sub>S) in sweet gas, P2 = ppmv total sulfur (as H<sub>2</sub>S) in noncondensable vapor gas, F1 = sweet gas flowrate (scf/day) and F2 = noncondensable vapor gas (scf/day). [District Rule 2201] Federally Enforceable Through Title V Permit
13. Combined annual combustion emissions from units S-1328-1, -2, -3 and the flare identified on S-1328-7 shall not exceed any of the following: NO<sub>x</sub> (as NO<sub>2</sub>): 25,733 lb/yr, SO<sub>x</sub> (as SO<sub>2</sub>): 41,975 lb/yr, PM<sub>10</sub>: 7,154 lb/yr, CO: 22,849 lb/yr, or VOC: 4,271 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
14. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The operator shall apply to revise each Permit to Operate subject to the SLC when any unit subject to the SLC has a District-authorized change in daily emission rate, or Permit to Operate is surrendered or sold. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Standby flare shall comply with all requirements of District Rule 4311. [District Rule 4311] Federally Enforceable Through Title V Permit
17. The flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit
18. The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
19. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
20. {2332} Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
21. Open flares (air-assisted, steam-assisted, or non-assisted) in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18. [District Rule 4311, 5.6] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE



22. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
23. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual emissions for each unit. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Permittee shall sample sweet and noncondensable vapor gas monthly for total sulfur concentration (as H<sub>2</sub>S) and shall maintain daily records of sweet and noncondensable vapor gas flowrate (scf/day). [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
25. Permittee shall maintain accurate daily records of volume noncondensable gas incinerated in flare. [District Rule 1070] Federally Enforceable Through Title V Permit
26. Gas and liquid leaks are as defined in Section 3.20 of Rule 4401. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
27. Any steam-enhanced crude oil production well undergoing service or repair during the time the well is not producing shall be exempt from the requirements of Rule 4401. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
28. The requirements of this rule shall not apply to components serving the produced fluid line. [District Rule 4401, 4.5] Federally Enforceable Through Title V Permit
29. Except for complying with the applicable requirements of Section 6.1, Section 6.6.6 and Section 7.2, the requirements of this rule shall not apply to components described in Section 4.6.1 through Section 4.6.4. An operator claiming an exemption pursuant to Section 4.6 shall provide proof of the applicable criteria to the satisfaction of the APCO. [District Rule 4401, 4.6] Federally Enforceable Through Title V Permit
30. An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401, the well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or the steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system as defined in Section 3.0 of Rule 4401. [District Rule 4401, 5.1.1 and 5.1.2] Federally Enforceable Through Title V Permit
31. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations as defined by Section 5.2.2.1 of Rule 4401 requiring process fluid flow through the open-ended lines, a component with a major liquid leak, or a component with a gas leak greater than 50,000 ppmv. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit
32. An operator shall be in violation of this rule if any District inspection demonstrates or if any operator inspection conducted pursuant to Section 5.4 of Rule 4401 demonstrates the existence of any combination of components with minor liquid leaks, minor gas leaks, or a gas leaks greater than 10,000 ppmv up to 50,000 ppmv that totals more than number of leaks allowed by Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit
33. An operator shall not use any component with a leak as defined in Section 3.0 of Rule 4401, or that is found to be in violation of the provisions of Section 5.2.2 of Rule 4401. However, components that were found leaking may be used provided such leaking components have been identified with a tag for repair, are repaired, or awaiting re-inspection after being repaired within the applicable time frame specified in Section 5.5 of Rule 4401. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit

34. Each hatch shall be closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit
35. An operator shall comply with the requirements of Section 6.7 of Rule 4401 if there is any change in the description of major components or critical components. [District Rule 4401, 5.3.3] Federally Enforceable Through Title V Permit
36. Unless exempt under Section 4.7 or Rule 4401, except for pipes and unsafe-to-monitor components, an operator shall inspect all other components pursuant to the requirements of Section 6.3.3 of Rule 4401 at least once every year. [District Rule 4401, 5.4.1] Federally Enforceable Through Title V Permit
37. Unless exempt under Section 4.7 or Rule 4401, an operator shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.2] Federally Enforceable Through Title V Permit
38. Unless exempt under Section 4.7 or Rule 4401, in addition to the inspections required by Section 5.4.1 of Rule 4401, an operator shall inspect for leaks all accessible operating pumps, compressors, and PRDs in service as follows: An operator shall audio-visually (by hearing and by sight) inspect for leaks all accessible operating pumps, compressors, and PRDs in service at least once each calendar week. Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of this rule shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3] Federally Enforceable Through Title V Permit
39. Unless exempt under Section 4.7 or Rule 4401, in addition to the inspections required by Sections 5.4.1, 5.4.2 and 5.4.3 of Rule 4401, operator shall perform the following: initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release, re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection, inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. Except for PRDs subject to the requirements of Section 5.4.4.1 of Rule 4401, an operator shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4] Federally Enforceable Through Title V Permit
40. Unless exempt under Section 4.7 or Rule 4401, an operator shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.5] Federally Enforceable Through Title V Permit
41. A District inspection in no way fulfills any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. [District Rule 4401, 5.4.6] Federally Enforceable Through Title V Permit
42. An operator shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak and shall include the following information on the tag: date and time of leak detection, date and time of leak measurement, for a gaseous leak, the leak concentration in ppmv, for a liquid leak, whether it is a major liquid leak or a minor liquid leak, whether the component is an essential component, an unsafe-to monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit
43. An operator shall keep the tag affixed to the component until an operator has met all of the following conditions: repaired or replaced the leaking component, re-inspected the component using the test method in Section 6.3.3, and the component is found to be in compliance with the requirements of this rule. [District Rule 4401 5.5.2] Federally Enforceable Through Title V Permit
44. An operator shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

45. Except for leaking critical components or leaking essential components subject to the requirements of Section 5.5.7 of Rule 4401, if an operator has minimized a leak but the leak still exceeds the applicable leak limits as defined in Section 3.0 of Rule 4401, an operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: Repair or replace the leaking component; or vent the leaking component to a VOC collection and control system as defined in Section 3.0 of Rule 4401, or remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit
46. The repair period in calendar days shall not exceed 14 days for minor gas leaks, 5 days for major gas leaks less than or equal to 50,000 ppmv, 2 days for gas leak greater than 50,000 ppmv, 3 days for minor liquid leaks, 2 days for major liquid leaks. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit
47. The leak rate measured after leak minimization has been performed shall be the leak rate used to determine the applicable repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit
48. The time of the initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.6] Federally Enforceable Through Title V Permit
49. If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit
50. All records of required monitoring data and support information shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit
51. The operator of any steam-enhanced crude oil production well shall maintain records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit
52. Records of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components, including a copy of current calibration gas certification from the vendor of said calibration gas cylinder, the date of calibration, concentration of calibration gas, instrument reading of calibration gas before adjustment, instrument reading of calibration gas after adjustment, calibration gas expiration date, and calibration gas cylinder pressure at the time of calibration shall be maintained. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit
53. An operator shall maintain copies at the facility of the training records of the training program operated pursuant to Section 6.5 of Rule 4401. [District Rule 4401, 6.1.6] Federally Enforceable Through Title V Permit
54. Operator shall keep a copy of the APCO-approved Operator Management Plan at the facility. [District Rule 4401, 6.1.7] Federally Enforceable Through Title V Permit
55. An operator that discovers that a PRD has released shall record the date that the release was discovered, and the identity and location of the PRD that released. An operator shall submit such information recorded during the calendar year to the APCO no later than 60 days after the end of the calendar year. [District Rule 4401, 6.1.10] Federally Enforceable Through Title V Permit
56. If approved by the APCO, an operator need not comply with the annual testing requirement of Section 6.2.1 of Rule 4401 if all uncondensed VOC emissions collected by a vapor collection are controlled by an internal combustion engine subject to Rule 4702, a combustion device subject to Rule 4320, 4307 or 4308, a flare subject to Rule 4311. [District Rule 4401, 6.2.2] Federally Enforceable Through Title V Permit
57. The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

58. VOC content shall be analyzed by using the latest revision of ASTM Method E168, E169, or E260 as applicable. Analysis of halogenated exempt compounds shall be performed by using ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
59. Leak inspection, other than audio-visual, and measurements of gaseous leak concentrations shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane. The instrument shall be calibrated in accordance with the procedures specified in EPA Method 21 or the manufacturer's instruction, as appropriate, not more than 30 days prior to its use. The operator shall record the calibration date of the instrument. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one (1) centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit
60. The VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945, EPA Method 18 referenced as methane, or equivalent test method with prior District approval for TEOR gas, and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit
61. Operator shall maintain an inspection log pursuant to Section 6.4 of Rule 4401, including, at a minimum, all of the following information for each inspection performed: The total number of components inspected, total number and percentage of leaking components found by component type, location, type, and name or description of each leaking component and description of any unit where the leaking component is found, date of leak detection and the method of leak detection. For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak. the date of repair, replacement, or removal from operation of leaking components, identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier, the date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced, the inspector's name, business mailing address, and business telephone number, date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.1.4 and 6.4] Federally Enforceable Through Title V Permit
62. Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. [District Rule 4401, 6.5] Federally Enforceable Through Title V Permit
63. In accordance with the approved Operator Management Plan (OMP), permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit
64. By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit
65. {2457} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following requirements: County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
66. {2458} Compliance with permit conditions in the Title V permit shall be deemed in compliance with District Rule 4401 (Amended January 15, 1998), excluding sections 5.1 and 5.2 for control systems which have been waived from complying with the requirement of section 6.2.1. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
67. {2459} The requirements of District Rule 4407 (Adopted May 19, 1994) do not apply to this permit unit because it is not an in situ combustion well vent. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
68. ATC shall be implemented concurrently with or subsequent to ATCs S-1328-59-0 and '-60-0. [District Rule 2201]

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